

# Neonaticide, Infanticide, and Filicide: A Review of the Literature

Steven E. Pitt, DO and Erin M. Bale, BA

This article summarizes and reviews the literature on neonaticide, infanticide, and filicide. A literature review was conducted using the Medline database: the cue terms neonaticide, infanticide, and filicide were searched. One hundred-fifteen articles were reviewed; of these, 51 are cited in our article. We conclude that while infanticide dates back to the beginning of recorded history, little is known about what causes parents to murder their children. To this end, further research is needed to identify potential perpetrators and to prevent subsequent acts of child murder by a parent.

For many, the murder of a child by his or her own parent is an unfathomable act. In an effort to learn more about this subject, we reviewed the literature on neonaticide, infanticide, and filicide. Our review, which generated 115 articles, was limited to the human race. A significant number of the articles reviewed contained similar and/or repetitive information. Consequently, we selected 51 articles that best captured the essence of our subject matter. Several areas of interest were identified as necessary for inclusion in this article, including a review of the historical and cultural aspects of our topic, in addition to a discussion of classification

systems, motives, filicide and abortion, methods, victims, Munchausen by proxy syndrome (MBPS), sudden infant death syndrome (SIDS), severely handicapped newborns, and the disposition of offenders. Any one of the aforementioned subject areas offers the investigative potential for an individually focused article. For the purpose of this article, each selected topic is reviewed and summarized. The intent of including an abridged and condensed summary of multiple areas is to provide the reader with an overview of several topics related to child murder.

## Definition of Terms

Infanticide is the term most commonly used by authors who have written about child homicide. In the interest of clarity and consistency, we will use the terms employed by Resnick<sup>1</sup>: *infanticide* is a general term for child murder; *filicide*

---

Dr. Pitt is the Director of Forensic Psychiatric Services at Arizona State Hospital and an Assistant Clinical Lecturer in the Department of Psychiatry at the University of Arizona Health Sciences Center, Tucson, AZ. E. M. Bale is a graduate student in Clinical Psychology at Sam Houston State University, Huntsville, TX. Address correspondence to: Steven E. Pitt, DO, Arizona State Hospital, 2500 East Van Buren, Phoenix, AZ 85008.

refers to cases in which the murderer is a parent of the child; *neonaticide* is the term used for children who are slain within the first 24 hours of life.

### History

For the lay person, no crime is more difficult to comprehend than the killing of infants by their own parents.<sup>1</sup> However, infanticide dates back to the beginning of recorded history. In ancient civilizations, children were regarded as omens from the gods. Infants born with physical abnormalities were viewed as punishment for objectionable behavior by parents or societal elders.<sup>2</sup> These children were routinely sacrificed to palliate existing superstitions. The ill were viewed as an inappropriate drain on scarce resources. Sickly or weak children were often intentionally killed or left to die from exposure. In ancient Egypt, healthy children were entombed with their deceased parents to provide comfort and companionship. The Chinese and Japanese believed female infants were a financial burden, and therefore most were drowned. In ancient Greece and Rome, unwanted or deformed infants were exposed on dung heaps to be devoured by wild beasts.<sup>3</sup> Under Roman law, *patria potestas* recognized a father's right to murder his children.<sup>1</sup> In Japan, *mabiki*, which originally referred to the thinning of vegetable sprouts on the farm, was the term used to describe infanticide.<sup>4</sup> After delivering a newborn, a midwife would ask the father if he wanted to keep the baby. If he did not, the midwife would terminate the newborn's life in a custom called *modosu*, whereupon the "godsend" was re-

turned to "heaven." The nostrils of the unwanted child were then covered with paper soaked in water.<sup>4</sup>

In 1927, it was understood that childbirth and lactation entail a severe stress on women. Under certain circumstances, this stress was believed to cause insanity, during the course of which attempts at infanticide and suicide were common.<sup>5</sup>

Filicide continues to contribute to overall child mortality. Modern reasons for the murder of one's own child include the inability of the mother to care for the child, illegitimacy, greed for power or money, the manipulation of family size or composition, and massive fear/denial.<sup>1</sup>

### Cross-Cultural Phenomenon

The slaying of children is an international phenomenon. Cases of infanticide have been documented around the world. Once a tradition of infanticide is developed, customs encouraging psychological distancing between mother and neonate become institutionalized.<sup>6</sup> Hence, even as social conditions become altered, infanticide is likely to remain in the cultural repertoire.<sup>7</sup> In certain Eskimo tribes in Canada, sex ratios of children, along with anthropological investigations, suggest a female infanticide rate of 66 percent.<sup>8</sup> Among the Kallars of Madurai, India, the destruction of a female infant is viewed psychologically in the same light as abortion.<sup>9</sup> In China, the birth of a daughter has traditionally been accompanied by disappointment and even shame.<sup>10</sup>

Over time, these outlooks have changed little. The March 3, 1984, edition of *The People's Daily*, a provincial Chinese newspaper, acknowledged that the

## Neonaticide, Infanticide, and Filicide

“. . . butchering, drowning, and leaving to die of female infants . . . has become a grave social problem” (as quoted in *The Wall Street Journal*<sup>11</sup>). In Japan, between 1979 and 1986, there are 12 documented cases in which three or more consecutive infanticides occurred.<sup>12</sup> Also in Japan, baby girls born in the year known as *Hinoe-Uma*, or Fire-Horse, are believed to be cursed with poor luck; therefore, the Japanese do not want baby girls to be born during that time. The year of the Fire-Horse occurs every 60 years, and is based on the old Chinese almanac of 10 heavenly stems and 12 animals; it last fell in 1966. The neonatal mortality rate for baby Japanese girls in 1966, was 7.78 per 100,000 live births, compared to 4.97 in all other years between 1961 and 1967.<sup>4</sup> In contemporary Brazil, a woman may abandon or neglect her infant, thereby indirectly killing it, but if she commits infanticide, she is imprisoned.<sup>13</sup>

### Classification Systems

Researchers investigating the phenomenon of child murder have attempted to construct organized classification systems, whereby individual cases may be identified and categorized. The objective of this work was to enhance the mental health professional's understanding of the events which lead up to the offense and the perpetrator committing the offense, and to assist in constructing appropriate preventative measures for the commission of subsequent offenses.

In his review of 131 child murder cases, Resnick<sup>14</sup> proposed a classification system for filicide. Resnick's categories were based on motives for murder.

1. *Altruistic filicide* can be divided into two subgroups. First, the offense may be committed by parents who believe that the child or family is facing an unbearable, inescapable, impending doom. Second, the parents may murder their children in association with their own suicide. These parents often do not believe that the child can exist without them.

2. *Acutely psychotic filicide* involves parents who kill while suffering from epilepsy, delirium, or hallucinations. This category contains those cases lacking any discernable motive for the crime.

3. *Unwanted child filicide* is committed because the infant was never, or is no longer, wanted by the parents. This type of murder is commonly committed due to illegitimacy or extramarital conception.

4. *Accidental filicide* is generally the aftermath of “battered child syndrome.” It is accidental because the parent does not intend to kill the child.

5. *Spouse revenge filicide* describes children who are murdered in order to retaliate against perceived wrongdoing of a spouse. The story of Medea from Greek mythology is often cited as an example of this type of filicide. Medea killed her two sons after discovering her husband's infidelity. She then told him, “Thy sons are dead and gone. That will stab thy heart.”<sup>15</sup>

Scott, d'Orban, and Bourget and Bradford have each proposed similar classification systems. Scott<sup>16</sup> also used a five-point classification to describe infanticide. However, his system is based on the source of the impulse to kill: (1) parents who eliminate an un-

wanted child; (2) mercy killing; (3) aggression attributable to gross mental pathology; (4) stimulus arising outside of the victim; and (5) stimulus arising from the victim.

d'Orban<sup>17</sup> gathered data on 89 women charged with the murder or attempted murder of their children. The women were admitted to prison during a six-year period between 1970 and 1975. Based on his sample, d'Orban proposed a classification system consisting of six groups (five of the groups were similar to Scott's categories and the sixth was adopted from Resnick): (1) *battering mothers*, all instances of sudden impulsive killing, explosive temper, or stimulus arising from the victim (equivalent to Scott's group five); (2) *mentally ill mothers*, diagnosis of psychotic illness and depression (equivalent to Scott's group three, and where the stimulus arose from depressive reactions in group four); (3) *neonaticides*, infants killed or attempted to be killed within the first 24 hours of life (adopted from Resnick); (4) *retaliating women*, aggression directed at the child was displaced from the spouse (equivalent to Scott's group four where the stimulus arose from revenge); (5) *unwanted children*, were killed either by omission or commission (equivalent to Scott's group one); and (6) *mercy killing*, cases in which there was true suffering in the victim and no gain for the mother (equivalent to Scott's group two).

Bourget and Bradford<sup>18</sup> considered classifications of Resnick, Scott, and d'Orban and felt that a lack of consistency remained. They suggested a system that would encompass various types of

clinical situations: (1) pathological filicide—altruistic motives, extended homicide-suicide; (2) accidental filicide—battered child syndrome, others; (3) retaliating filicide; (4) Neonaticide—unwanted child; and (5) paternal filicide.

These classification systems offer various perspectives through which investigators may view incidents of child murder. The identification of a particular category within which a particular homicide may fit allows for a more focused investigation into the etiology of the individual crime.

### Perpetrators

The development of successful treatment and prevention programs begins with the identification of potential perpetrators. Several trends have become apparent in the literature, which point to a distinct perpetrator profile. Resnick<sup>19</sup> reviewed the cases of 34 mothers who had killed their children. He then divided these mothers into two groups: those who committed neonaticide and those who committed filicide. The mothers in the neonaticide group were significantly younger than those in the filicide group. Eighty-eight percent of the filicide mothers were married, while 81 percent of the neonaticide mothers were unmarried. In reviewing the psychological health of these mothers, another trend emerged. The women in the filicide group were much more likely to be depressed, psychotic, and to have attempted suicide.<sup>19</sup> Hirschmann and Schmitz<sup>20</sup> found that women who killed their illegitimate children tended to be young, immature primiparas who were sexually submissive.

## Neonaticide, Infanticide, and Filicide

had no history of criminal behavior, and rarely sought abortions. They believe these women have a "primary weakness of the characterological superstructure." Hirschmann and Schmitz<sup>19</sup> also believe that a second and smaller group of women exists. These women have strong instinctual drives and little ethical restraint. Members of this group are more intelligent and egotistic, and are often promiscuous; they are customarily older, strong willed, and callous. The crime is not contradictory to their chosen lifestyle.<sup>19, 20</sup> Gummersbach<sup>21</sup> contends that passivity is the single most important factor separating women who commit neonaticide from those who obtain abortions. Women elect to have abortions because they are aware of their pregnancy and all of its accompanying implications; their decisions are reasoned and grounded in reality. They seek to immediately destroy the danger.

Women who commit neonaticide generally have made no plans for the birth or care of their child. They often conceal the pregnancy throughout gestation from both family and friends. Massive denial of the gravid state is a prominent feature of this clinical situation. The denial can be so powerful that it affects not only the mother's own perception, but those of her family, friends, teachers, employers, and even physicians.<sup>22</sup> Gerchow<sup>23</sup> opined that the need to deny may be so powerful that even the biological manifestations of the pregnancy may be influenced.

### Filicidal Men

Females are identified in an overwhelming number of cases as the princi-

pal perpetrators of filicide. As such, the majority of the literature reviewed was focused on female assailants. Notwithstanding the scarcity of information about male perpetrators, we believe a review of this information falls within the purview of our topic.

Campion *et al*<sup>24</sup> described 12 filicidal men examined at a forensic psychiatric unit between 1970 and 1982. The majority of male offenders evidenced an impairment in their reality testing at the time of the offense. Most of the men studied were raised with multiple developmental stressors, including violence, parental abuse, and separation from, or death of, parents. Nine of the 12 men had significant neurological or psychiatric disorders of childhood. Several had been physically or sexually abused. Others had been placed in residential settings outside of the home for aggressive behavior or maternal incompetence.<sup>24</sup> Overall these men were not abusive before the offense. In sharp contrast to regularly abusive fathers, in whom psychosis is rare,<sup>25-27</sup> 9 of 12 men studied had psychotic or organic impairments.<sup>24</sup> Misinterpretation of the child's behavior appears to be the primary motive in paternal filicide.<sup>24</sup> Child behavior was seen by the perpetrator as threatening, rejecting, or provocative.<sup>16</sup> Men are more likely than women to use active methods of murder, such as striking, squeezing, or stabbing.<sup>1</sup> Despite the rare occurrence of paternal neonaticide, the likelihood of a male offender increases substantially with the age of the victim.<sup>28</sup>

### Motives

Considering the seemingly inexplicable nature of these crimes, an area of

particular interest is the identification of the motives that cause perpetrators to murder their children. Fear seems to be a pronounced factor in the motivation for neonaticide. Frequently, perpetrators are unwed mothers who live in terror of the shame and guilt that accompany conception without marriage. In 1826, Scott<sup>29</sup> eloquently described this dilemma: "A delicate female, knowing the value of a chaste reputation, and the infamy and disgrace attendant upon the loss of that indispensable character and aware of the proverbial uncharitableness of her own sex, resolves in her distraction, rather than encounter the indifference of the world and banishment from society, to sacrifice what on more fortunate occasions, it would have been her pride to cherish."

Despite societal liberalization of almost 200 years, illegitimacy continues to generate trepidation. Similarly, among single women, there was a profound fear of revealing the pregnancy to their own mothers. The idea of being confronted with their mothers' rejection generates massive overwhelming anxiety.<sup>19</sup> Fear also plays a role in the commission of child destruction by married women. In these cases, the motivation for murder is most often extramarital pregnancy. A woman becomes pregnant by a man other than her current spouse and is distraught in light of the probable repercussions.

### Filicide and Abortion

Some scholars believe that the increased accessibility of abortion is a viable alternative to neonaticide. Resnick<sup>19</sup> theorized that liberalized abortion, while

not an ideal solution, would offer women a less cruel alternative than killing their newborns. Evidence suggests that a relationship exists between the availability of abortion and neonaticide. Lester<sup>30</sup> showed that neonatal homicide rates were lower in the 10 years following *Roe v. Wade* than in the 10 years before the case. Another study illustrated that neonaticide is proportionally higher in rural areas, where abortion may not be socially acceptable or available.<sup>28</sup> Currently, the relationship between neonaticide and abortion is inconclusive. Although there is descriptive evidence to support a correlation, it is not scientific in nature and therefore cannot be a basis for conclusion at this time. Further investigation of this topic is certainly warranted.

### Methods

Little has been written about the methods implemented in the murder of children older than one day. Available literature indicates that suffocation and strangulation are the most common methods of neonaticide, followed by, in order of greatest frequency, head trauma, drowning, exposure, and stabbing.<sup>19</sup> However, numerous other means have been implemented in the killing of newborns. One case involved a six-week-old infant who was determined to have been deprived of approximately 10 days worth of food and water.<sup>31</sup> In New York, on two separate occasions, a 15- and 14-year-old girl, respectively, was reported to have killed her newborn by throwing him out a several-story window.<sup>22</sup> Another account concerned a live-born infant who was thrown to the side of the roadway in a

## Neonaticide, Infanticide, and Filicide

paper bag to be run over by a passing vehicle.<sup>32</sup> Resnick<sup>19</sup> described a method in which midwives killed newborns by sticking a needle under their eyelid or into the anterior fontanel.

### Victims

Based on data from 25 countries, it was found that the homicide rate for children less than one year old was at least as high or higher than the rate for adults.<sup>33</sup> Daly and Wilson<sup>34</sup> took a representative sample of 60 cultures. Infanticide was found in 39 of these cultures. In their study of infanticide in the United States, Brozovsky and Falit<sup>22</sup> determined that in 1967, 45.6 percent of children killed in their first year of life were murdered within the first 24 hours. World Health Organization statistics from 1977 to 1980 reflect that outside of Europe, young adults are at the highest risk for murder. In Europe, 12 of 22 countries have infants at the highest risk for murder. It was also found that as the overall homicide rate is reduced, the risk for young adults decreases, and the risk for infants increases.<sup>35</sup> In 1980, children under the age of 15 accounted for one of every 25 homicide victims in the United States. Risk is associated with both race and sex, with male and nonwhite children more likely to be victims of child murder than female and white children.<sup>36</sup>

MBPS, SIDS, and the plight of the severely handicapped newborn are three additional conditions in which children have been fatally victimized.

### *Munchausen by Proxy Syndrome*

Mothers who suffer from MBPS typically appear to be exceptional parents. The

harm inflicted on the children of these women is the carefully calculated result of a multifaceted psychological disorder. The likelihood of victimization cannot be determined by gender, birth order, or favoritism. While some children suffering from MBPS survive (often with extensive psychological maladjustment), the literature indicates the presence of a significant mortality rate in child victims and their siblings. In their comprehensive text, *Hurting for Love*, Schreier and Libow<sup>37</sup> cite numerous studies that describe case reports that document the relationship between child mortality and MBPS. However, Schreier and Libow point out that these same articles are anecdotal and caution that no definitive causative link has been identified between filicide and MBPS.

### *Sudden Infant Death Syndrome*

Another occurrence that has been related to filicide is SIDS. In 1963, SIDS was identified as a certifiable cause of death.<sup>38</sup> Following the introduction of this syndrome, Kukull and Peterson<sup>38</sup> examined the trend in infant homicide rates. They proposed that if homicide was a significant cause of SIDS death, then the infant homicide rate should have decreased post-1963. Because the recorded rate of neonatal homicide remained essentially unchanged, Kukull and Peterson concluded that SIDS deaths are not usually caused by homicide. These authors further claimed that "to stimulate the SIDS a depressed mother would need to act with split second timing, knowledge of the desired effect (petechiae) and use of a mechanical medium which would achieve

complete airway obstruction while producing no attributable trauma.”

Ten years later, Kukull and Peterson’s assumption was questioned by Alan W. Cashell.<sup>39</sup> Cashell stated that Kukull and Peterson’s article contained neither discussion of crib death classification before 1963 nor any case reports, and therefore could not be considered a conclusive account. Cashell<sup>39</sup> believed that the incidence of child murders that have been attributed to SIDS is higher than currently estimated. One author reported that an infant’s airway can be occluded without even disturbing sleep.<sup>40</sup> A case currently before the courts in New York involves a 47-year-old woman charged with killing her five children. All five died consecutively of mysterious natural causes attributed to SIDS. A pediatrician who followed two of the children went so far as to publish a medical journal article about how SIDS can run in families. Over 20 years later, the mother is in custody, charged with smothering three children with pillows, one with a bath towel, and another by pressing its face against her shoulder.<sup>41\*</sup>

It is emphasized that while a pathologist cannot present a positive determination in every instance of child mortality, an examination of the child’s social history is essential in questionable cases. It is also suggested that the term “undetermined,” rather than SIDS, should be recorded as the cause of death on the death

certificate in the presence of any suspicion.<sup>39</sup>

### *Severely Handicapped Newborns*

The issue of severely handicapped newborns has raised passionate ethical debate. We determined that this issue is directly related to the overall societal conception of child murder and is therefore suitable for inclusion in this article. A severely defective newborn is one for whom medical intervention is necessary for survival. These children also have a poor posttreatment prognosis of minimal functioning and little cognitive capacity.<sup>42</sup>

The critical question is whether parents and/or medical professionals have the right to withhold medical technology. (In April 1982 in Bloomington, IN, the Superior Court of Monroe County upheld the parents’ decision to withhold treatment of their child when this decision was challenged by the Bloomington Hospital. This incident became known as the “Baby Doe” case, and sparked considerable public interest.) The Child Abuse Amendments of 1984 were intended to prevent discrimination against handicapped newborns with life-threatening conditions. The act, however, according to its authors, is meant to exclude infants with more than one life-threatening disability, where there is no effective treatment for one of the conditions. These infants could be classified as “futile.”<sup>42</sup>

In his award-winning essay on ethical issues in infanticide, David Lister<sup>43</sup> applied Kluge’s<sup>44</sup> definition of personhood: “A natural person is any biologic entity of the species *Homo sapiens* that possesses the present functional capability for conscious awareness, or any human being

\*At press time, the defendant had been convicted of four counts of second degree murder and one count of first degree murder. She is presently awaiting sentencing (personal communication with Robert Simpson, District Attorney, Oswego County, NY).



## Neonaticide, Infanticide, and Filicide

whose cerebrum is structurally sufficiently like that of a normal adult human being that, if it were fully operational without structural change, it would evince neurologic activity of the same nature as that of a normal adult human being.”

Using Kluge’s definition, it is possible that a defective newborn could (based upon the severity of its condition) be considered either a person or nonperson. Following this rationale, it is further possible that treatment could ethically be withheld from those newborns considered to be nonpersons. Glover<sup>45</sup> supports this viewpoint: “Where the handicap is sufficiently serious, the killing of a baby may benefit the family to an extent that is sufficient to outweigh the unpleasantness of the killing.” Lister<sup>43</sup> goes further to say that using scarce resources to prolong the lives of nonpersons would be unethical as it would deprive persons of these resources. It does not necessarily follow, however, that all those disabled newborns falling under the label of person should receive treatment. What if the infant is facing a life of pain and suffering and has scant hope of interaction with people? Lister<sup>43</sup> feels that society as a whole is responsible for determining the qualitative parameters to be used in determining whether the expected quality of an infant’s life will be worth the expenditure of extraordinary measures to save it.

Harms and Giordano<sup>2</sup> point out that Lister’s conclusion could be expanded to include individuals, both infants and adults, who have suffered severe injury or illness resulting in the cessation or a decrease of cortical functioning. They ask the question, “Should society be respon-

sible for the termination of such patients simply because they lack the functional capacity for conscious awareness?”

Harms and Giordano’s argument is philosophical, and a definitive answer is unlikely to be reached. The controversy of terminal decisionmaking then returns to the question of parental authority. If society is unable to create all-inclusive guidelines, then who holds the ultimate authority for each individual case? Organizations such as the American Medical Association and the American Academy of Pediatrics have affirmed the rights of parents to be responsible for life decisions regarding their children. These groups do qualify their position with statements regarding beneficence.<sup>46</sup> If a parent fails to proceed in a manner that reflects the child’s best interest, then the state may exercise paternalistic power to override the parent’s decision.<sup>47</sup>

Ethical matters involving life and death are constantly subject to emotional controversy. It is certain that with today’s rapidly advancing technology, the disposition of severely handicapped newborns will continue to be a source of heated debate.

### Disposition of Offenders

Specific trends have become apparent in the conviction and sentencing patterns of filicidal offenders. The disposition of documented offenders who have committed child murder has resulted in a disproportionate gender-biased sentencing phenomenon. Paternal offenders are sent to prison or executed more often than maternal offenders. Mothers who commit neonaticide are less likely to be hospital-

ized than those who commit filicide. The low hospitalization rate for neonaticide corresponds to the lower incidence of psychoses in that group.<sup>1</sup> Often juries are unwilling to convict a woman for neonaticide; for no other crime is there such a lack of conviction.<sup>21</sup> It has been speculated that this trend is due to the failure of the accused to fit the societal stereotype of a murderess.<sup>21</sup> Another plausible cause for the low conviction rate is that society believes that a woman who has killed her child has constructed enough guilt in the act to punish her sufficiently.<sup>48</sup>

Resnick<sup>19</sup> found that the likelihood of a mother killing a second newborn after standing trial for neonaticide is very low. Although a few reports of recidivism exist, generally the previous neonaticides in these instances had been undiscovered.

### Conclusion

This article provides an overview of several topics related to the murder of children. Our intent was to furnish the reader with an understanding of the wide spectrum of factors that contribute to the murder of a child by a parent. Given the scope of our project, each of the subheadings addressed offers the potential to generate prolific, subject-specific research and/or articles. Moreover, our discussion was limited to the incidence of child murder in the human race. Several articles were identified that focused on animal behavior. However, we determined that the inclusion of such research did not fit within the objective of our article. Rather, it is our opinion that this subject would be best addressed in the context of an article

that explored ethological theories and the killing of a newborn by a parent.

Child murder seems to be a multifaceted phenomenon that deserves a high level of professional attention to further identify risk.<sup>18</sup> In the documented clinical case histories of mothers who commit neonaticide, medical confirmation of pregnancy is routinely absent. This emphasizes the critical need of physicians to diagnose pregnancy in unmarried mothers and to explore the impact of that pregnancy.<sup>49</sup> Resnick found that three-quarters of the parents who killed their children evidenced psychiatric symptoms before the act. Forty percent of these parents were seen by a physician shortly before committing their crimes.<sup>1</sup> Once again, it is imperative that medical professionals, particularly psychiatrists and obstetricians, be alert to the filicidal potential of their patients.

The possibility of child homicide should never be overlooked, particularly in mothers who are depressed or unprepared for postnatal child care. Warning signs include mothers displaying suicidal ideation, strong parental identification with an "overloved" child, and evidence of hostility toward the favorite child of a spouse.<sup>1</sup> Hospitalization is mandatory when parents express concern over harming their children and are overconcerned about their children's health.<sup>1</sup> Resnick suggests directly questioning the parents regarding the fate of their children.<sup>1</sup> This approach may be helpful in assessing the extent of the parent-child bond.

Some authors suggest prevention programs designed to focus on the developmentally based vulnerabilities of newborn

## Neonaticide, Infanticide, and Filicide

children.<sup>50</sup> Parents must be thoroughly educated about the extreme stress of the infancy period. Continuing education is also necessary to aid parents in coping with the persistent demands of the postinfancy period. Currently, public health and social service approaches are not meeting society's needs to prevent filicide and infanticide.<sup>51</sup> Hence, a continued effort to ascertain and determine the etiological factors responsible for neonaticide, infanticide, and filicide would provide an invaluable database to assist in the prevention of subsequent offenses.

### Acknowledgment

The authors express their heartfelt thanks to Dr. Jonas R. Rappeport for reviewing earlier drafts of this article and for his editorial assistance.

### References

1. Resnick PJ: Infanticide, in *Modern Perspectives in Psycho-obstetrics*. Edited by Howells JG. Edinburgh: Oliver & Boyd, 1972, pp 410-31
2. Harms DL, Giordano J: Ethical issues in high-risk infant care. *Issues Compr Pediatr Nurs* 13:1-14, 1990
3. Bloch H: Abandonment, infanticide, and filicide. *Am J Dis Child* 142:1058-60, 1988
4. Kaku K: Were girl babies sacrificed to a folk superstition in 1966 in Japan? *Ann Hum Biol* 2:391-3, 1975
5. Hopwood JS: Child murder and insanity. *J Ment Sci* 73:95-108, 1927
6. Fuchs R: *Abandoned Children: Foundlings and Child Welfare in Nineteenth-Century France*. Albany, NY: State University of New York, 1984
7. Hrdy SB: Fitness tradeoffs in the history and evolution of delegated mothering with special reference to wet-nursing, abandonment, and infanticide. *Ethol & Sociobiol* 13:409-42, 1992
8. Loomis MJ: Maternal filicide: a preliminary examination of culture and victim sex. *Int J Law Psychiatry* 9:503-6, 1986
9. Krishnaswamy S: A note on female infanticide: an anthropological inquiry. *Indian J Soc Work* XLV:297-302, 1984
10. Light S: Female infanticide in China: response to the victimization of women and children. *J Center Women & Policy Stud* 8:5-6, 1985
11. Mosher S: Why are baby girls being killed in China? *Wall Street Journal*, July 25, 1984
12. Funayama M, Sagisaka K: Consecutive infanticides in Japan. *Am J Forensic Med Pathol* 9:9-11, 1988
13. Scheper-Hughes N: Culture, scarcity and maternal thinking. *Ethos* 13:291-317, 1985
14. Resnick PJ: Child murder by parents: a psychiatric review of filicide. *Am J Psychiatry* 126(3):325-34, 1969
15. Oates W, O'Neill E Jr (eds.): "Medea" by Euripides, in *The Complete Greek Drama* (vol 1). New York: Random House, 1938, pp 719-58
16. Scott P: Parents who kill their children. *Med Sci Law* 13:120-6, 1973
17. d'Orban PT: Women who kill their children. *Br J Psychiatry* 134:560-71, 1979
18. Bourget D, Bradford JM: Homicidal parents. *Can J Psychiatry* 35:233-8, 1990
19. Resnick PJ: Murder of the newborn: a psychiatric review of neonaticide. *Am J Psychiatry* 126:1414-20, 1970
20. Hirschmann VJ, Schmitz E: Structural analysis of female infanticide. *Psychotherapy* 8:1-20, 1958
21. Gummersbach K: Die kriminalpsychologische Personlichkeit der Kindes modernnen und ihre Wertung im gerichtsmmedizinischen Gutachten. *Wein Med Wschr* 88:1151, 1938
22. Brozovsky M, Falit H: Neonaticide: clinical and psychodynamic considerations. *J Am Acad Child Psychiatry* 10:673-83, 1971
23. Gerchow J: Die arztlich-forensische Beurteilung von Kindesmorderinnen. Halle, Germany: Carl Morhold Verlag, 1957
24. Campion JF, Cravens JM, Covan F: A study of filicidal men. *Am J Psychiatry* 145: 1141-4, 1988
25. Spinetta J, Rigler D: The child abusing parent. *Psychol Bull* 77:296-304, 1972
26. Steele B: Psychodynamic factors in child abuse, in *The Battered Child* (ed 3). Edited by Kempe CH, Helfer RE. Chicago: University of Chicago Press, 1980, pp 49-85
27. Kaplan S, Pelcovitz D, Salzinger S: Psychopathology of parents of abused and neglected children and adolescents. *J Am Acad Child Psychoanal* 22:238-44, 1983
28. Jason J, Gilliland JC, Tyler CW Jr: Homicide as a cause of pediatric mortality in the United States. *Pediatrics* 72:191-7, 1983

29. Scott D: Case of infanticide. *Edinb Med Surg J* 26:62, 1826
30. Lester D: *Roe v. Wade* was followed by a decrease in neonatal homicide. *JAMA* 267: 3027-8, 1992
31. Meade JL, Brissie RM: Infanticide by starvation: calculation of caloric deficit to determine degree of depravation. *J Forensic Sci* 30: 1263-8, 1985
32. Shiono H, Maya A, Tabata N, Fujiwara M, Azumi J, Morita M: Medicolegal aspects of infanticide in Hokkaido district, Japan. *Am J Forensic Med Pathol* 7:104-6, 1986
33. Stratus MA: State and regional differences in U.S. infant homicide rates in relation to sociocultural characteristics of the states, in *Behavioral Sciences and the Law, Homicidal Behavior*. Edited by Cavanaugh JL. New York: Wiley & Sons, 1987, pp 61-75
34. Daly M, Wilson M: Discriminative parental solicitude: a biological perspective. *J Marriage Fam* 42:277-88, 1980
35. Lester D: The distribution of sex and age among victims of homicide: a cross-national study. *Int J Soc Psychiatry* 32:47-50, 1986
36. Christoffel K: Homicide in childhood: a public health problem in need of attention. *Am J Public Health* 74:68-70, 1984
37. Schreier HA, Libow JA: *Hurting for Love: Munchausen by Proxy Syndrome*. New York: Guilford Press, 1993
38. Kukull WA, Peterson DR: Sudden infant death and infanticide. *Am J Epidemiol* 106: 485-6, 1977
39. Cashell AW: Homicide as a cause of the sudden infant death syndrome. *Am J Forensic Med Pathol* 8:256-8, 1987
40. Norton LE: Child abuse. *Clin Lab Med* 3:321-42, 1983
41. Toufexis A: When is crib death a cover for murder? *Time* 143:63-4, 1994
42. Jackson CC: Severely disabled newborns: to live or let die? *J Leg Med* 8:135-76, 1987
43. Lister D: Ethical issues in infanticide of severely disabled newborns. *Can Med Assoc J* 135:1401-4, 1986
44. Kluge EHW: Euthanasia of radically defective neonates: some statutory considerations. *Dalhousie L J* 6:230-57, 1980
45. Glover J: *Causing Death and Saving Lives*. Harmondsworth, England: Penguin Books, 1977
46. McLone D: The diagnosis, prognosis, and outcome for the handicapped newborn: a neonatal view. *Issues Law Med* 2:15-24, 1986
47. Abrams N, Neumann L: Human rights and ethical decision making in the newborn nursery, in *Bioethics and Human Rights*. Edited by Bandman E, Bandman B. Lanham, MD: University Press of America 1986, pp 157-63
48. Victoroff VM: A case of infanticide related to psychomotor automatism: psychodynamic, physiological, forensic and sociological considerations. *J Clin Exp Psychopathol* 16:191, 1955
49. Green CM, Manohar SV: Neonaticide and hysterical denial of pregnancy. *Br J Psychiatry* 156:121-3, 1990
50. Christoffel K, Anzinger NK, Amari M: Homicide in childhood, distinguishable patterns of risk related to developmental levels of victims. *Am J Forensic Med Pathol* 4:129-37, 1983
51. Heiger AA: Filicide: an update. *Conn Med* 50:387-9, 1986